

REMARKS

Applicants thank the Examiner for indicating that claims 4, 11 and 22 would be allowable if rewritten in independent form to include all limitations of the base claim and any intervening claims.

Claims 1-25 are pending in the application. Claims 1, 10, 16, and 19 are independent. By the foregoing Amendment, claims 1, 10-14, 16, and 19-25 have been amended. These changes are believed to introduce no new matter and their entry is respectfully requested.

Objection to Claims 1, 10-14, 16, and 19-25

In the Office Action, the Examiner objected to claims 1, 10-14, 16, and 19-25 citing informalities. Although Applicants believe claims 1, 10-14, 16, and 19-25 to be patentable as written, by the foregoing Amendment, Applicants have amended claims 1, 10-14, 16, and 19-25 to accommodate the Examiner. Accordingly, Applicants respectfully request that the Examiner reconsider and remove the objection to claims 1, 10-14, 16, and 19-25.

Rejection of Claims 1-3, 5-10, 12-16, 19-21, and 23-25 Under 35 U.S.C. §102(e)

In the Office Action, the Examiner rejected claims 1-3, 5-10, 12-16, 19-21, and 23-25 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Publication No. 2004/0177087 to Wu et al. (hereinafter “Wu”). Applicants respectfully traverse the rejection.

A claim is anticipated only if each and every element of the claim is found, either expressly or inherently, in a reference. (MPEP §2131 *citing Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628 (Fed. Cir. 1987)). The identical invention must be shown in as complete detail as is contained in the claim. *Id. citing Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989)). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Representative claim 1 recites in pertinent part “receiving an allowed amount of target traffic representing a first value and a *second value representing a time interval during which to*

receive the allowed amount of target traffic, the first value and the second value defining a percentage of target traffic allowed through a port, the port having a port speed; determining that port speed changed by a factor of N ; *scaling the second value by a factor of $1/N$* , respectively; and based on the allowed amount of target traffic and the scaled second value, dropping target traffic when a percentage of target traffic exceeds the defined percentage of target traffic allowed through the port” (emphasis added). Independent claims 10, 16, and 19 recite similar language.

In the Office Action, the Examiner states that *Wu* discloses receiving a first value representing an allowed amount of target traffic, citing Figure 5, paragraph [0014] of *Wu*, and a second value representing a time interval during which to receive the allowed amount of target traffic, citing Figure 5, paragraph [0044] of *Wu*, the first value and the second value defining a percentage of target traffic allowed through a port, citing Figure 5, paragraph [0014] of *Wu*, stating that the ration of target traffic or fair share of TCP vs. UDP in a given time represents the percentage of traffic allowed thru the port. The Examiner asserts further that *Wu* discloses the port having a port speed, citing Figures 1 and 5 of *Wu* as disclosing a port having a specific speed as illustrated by the TCP target rate in Kbps, determining that port speed changed by a factor of N , citing Figure 5, paragraph [0014] of *Wu* as disclosing that TCP rate varies based on the bandwidth of the bottleneck port selected, scaling the second value by a factor of $1/N$, citing paragraphs [0038] and [0044] of *Wu* as disclosing that weights are adjusted periodically for a determined or dynamic interval and thus as port speed changes by a value of N likewise its rate of transfer changes by a factor of $1/N$ in order to maintain ratio proportionality, and based on the allowed amount of target traffic and the scaled second value, dropping target traffic when a percentage of target traffic exceeds the defined percentage of target traffic allowed through the port, citing paragraphs [0035] thru [0043] of *Wu* as disclosing a drop profile is determined to drop packets as desired. Applicants respectfully disagree.

Applicants respectfully submit that *Wu* fails to disclose the identical invention as contained in the claims. As a first matter, Applicants respectfully submits that *Wu* fails to disclose “receiving ... a *second value representing a time interval during which to receive the allowed amount of target traffic*” as recited in the independent claims. In the Office Action, the

Examiner cites Figure 5, paragraph [0044] of *Wu* for this disclosure. Applicants respectfully disagree.

Applicants respectfully submit that *Wu* is directed to observing traffic aggregates, i.e. collections of data packets with the same differentiated service (DS) code point crossing a link in a particular direction, and scheduling packets based on the type of traffic. *Wu* appears to determine target traffic rates for TCP and UDP traffic in Kbps, to measure the incoming TCP and UDP traffic, to compare the target traffic for TCP and UDP traffic with the measured incoming TCP and UDP traffic, and to schedule future TCP and UDP traffic based on the target traffic rates to ensure that TCP and UDP traffic receive their fair share of bandwidth. *Wu* appears to measure the incoming TCP and UDP traffic over time intervals of 0-20 seconds, 20-40 seconds, 40-60 seconds, and 60-80 seconds. Because the aggregate numbers versus target rates does not change in the 0-20 time interval, the fair shares remain the same. However, because the aggregate numbers versus target rates change in the 20-40 time interval the fair shares change. This process continues in the 40-60 second time interval and the 60-80 second time interval.

Contrary to the Examiner's assertion, *Wu* does not explicitly or inherently disclose separating bandwidth into two values: (1) an allowed amount of traffic, e.g., in bits or bytes; and (2) a time in which to receive the allowed amount of traffic, e.g., one second, one-tenth of a second, one one-hundredth of a second. The time intervals in *Wu* appear to be limited to a measurement period for bandwidth. As such, *Wu* appears only to be able to change bandwidth as a whole. *Wu* does not appear to be able to *manipulate separately* the two values that make up bandwidth. In contrast, embodiments of the present invention are able to manipulate the second value separate from the first value. For example, embodiments of the claimed invention operate by "scaling the second value by a factor of $1/N$." *Wu* cannot and does not do this.

As a second matter, assuming for the sake of argument that *Wu* could manipulate the two values separately, which Applicants are not conceding, *Wu* fails to disclose "scaling the second value by a factor of $1/N$ " as recited in the claims. For this proposition, the Examiner cites paragraphs [0038] and [0044] of *Wu* as disclosing that weights are adjusted periodically for a determined or dynamic interval and thus as port speed changes by a value of N likewise its rate

of transfer changes by a factor of $1/N$ in order to maintain ratio proportionality, and based on the allowed amount of target traffic and the scaled second value. Applicants respectfully disagree.

Applicants respectfully submit that just because a traffic rate changes does not mean that port speed has changed. For example, it is quite common for a port having a port speed of 100Mbps to receive traffic at differing rates; one rate may be 2Kbps, another may be 5Mbps, and still another may be 10 Mbps. The target rates in *Wu* that the Examiner asserts as being indicative of a port speed are merely bandwidth indicators. Figures 7 and 8 of *Wu* make the point clear that the traffic rates disclosed in *Wu* are not indicative of the port speed. In fact, nowhere in *Wu* is the term “port speed” disclosed.

Applicants respectfully submit further that the “weighting” in *Wu* does not refer to scaling the second value that makes up part of bandwidth. The “weighting” in *Wu* refers to determining a transmit order for queued packets.

Applicants respectfully submit that Applicants only need to demonstrate that one element of the claimed invention is missing to establish that the Examiner has not met the initial burden of making a *prima facie* case of anticipation with respect to the claimed invention. Applicants have shown that at least three elements are not taught either expressly or inherently in *Wu*. Applicants respectfully submit therefore that because the Examiner has failed to show that *Wu* teaches the identical invention as recited in the claimed invention the Examiner has failed to meet the burden of establishing a *prima facie* case of anticipation of the claimed invention over *Wu*. Accordingly, Applicants respectfully request that the Examiner reconsider and remove the rejection.

Rejection of Claims 17-18 Under 35 U.S.C. §103(a)

In the Office Action, the Examiner rejected claims 17-18 under 35 U.S.C. §103(a) as being obvious over *Wu* in view of U.S. Patent No. 5,991,271 to Jones et al. (hereinafter “*Jones*”). Applicants respectfully traverse the rejection.

To establish a *prima facie* case of obviousness, the Examiner must show that the cited references teach each and every element of the claimed invention. (MPEP §2143.) *citing In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)). A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was independently known in the prior art. *KSR Int'l C. v. Teleflex, Inc.*, No 04-1350 (U.S. Apr. 30, 2007). If a combination or modification to a reference is used, an Examiner must show that there is some expectation of success that the combination or modification proffered would predictably result in the claimed invention. Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the U.S. Supreme Court in *KSR* include the *Graham* factors of determining the scope and content of the prior art, ascertaining the differences between the claimed invention and the prior art, and resolving the level of ordinary skill in the pertinent art.

Once the *Graham* factual inquiries are resolved, the Examiner must explain why the difference(s) between the cited references and the claimed invention would have been obvious to one of ordinary skill in the art. The rationale used must be a permissible rationale. The USPTO promulgated Examination Guidelines for Determining Obviousness in View of *KSR* in the Federal Register, Vol. 72, No. 195 (October 10, 2007). These *KSR* Guidelines enumerate permissible rationales and the findings of fact that must be made under the particular rationale.

Claims 17-18 properly depend from claim 16 and are thus patentable for at least the same reasons that claim 16 is patentable. (MPEP §2143.03 (citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988))). Accordingly, Applicant respectfully requests that the Examiner reconsider and remove the rejection to claims 17-18.

CONCLUSION

Applicants respectfully submit that all grounds for rejection have been properly traversed, accommodated, or rendered moot and that the application is now in condition for allowance. The Examiner is invited to telephone the undersigned representative if the Examiner believes that an interview might be useful for any reason.

Respectfully submitted,

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/June 9, 2008/

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